

REMARKS

Claims 1-4 are pending in this application. Applicant has amended claims 1. Applicant believes that no new matter has been added by this response.

Response to 35 U.S.C. §102 Rejection

The Examiner rejected claims 1 and 2 under 35 U.S.C. §102(b) as being anticipated by MacDoran et al. (U.S. 4,797,677). Applicant has amended independent claim 1 to overcome the teachings of the MacDoran et al. patent. Applicant's independent claim 1 now requires that the frequency reference signal be received separate from the carrier removed GPS signal. This is different from the teachings and description of the MacDoran et al. patent, where the Examiner cited for Applicant's "the reference signal" MacDoran et al., column 6, lines 6-44, which reads:

"The L1 carrier component is recovered by connecting two of the output of the power divider 48 to a mixer 50. The output of mixer 50 is coupled by a filter 52 to a mixer 54, where it is down converted by a tone from synthesizer 40. The output of filter 52 is centered at 70.84 MHz and has twice the Doppler frequency spread that occurs on the L1 carrier and thus an effective recovered wavelength of 0.095 meters. A low frequency narrow band sine wave signal, exhibiting the Doppler frequency shift and fractional phase of the L1 carrier, is coupled from mixer 54 to an L1 carrier signal processor 56. The zero Doppler frequency shift condition is exhibited as a 10kHz sine wave.

The P-code chip rate component is recovered by connecting one output of the power divider 48 directly to a mixer 58 through a delay line 60 that introduces a time delay of one-half of the period of the P-code chip rate. The output of mixer 58 is coupled by a filter 62 to a mixer 64, where it is down converted by a tone from synthesizer 40. The output of filter 62 is a sine wave at the P-code chip rate. A low-frequency, narrow-band sine wave signal, exhibiting the Doppler frequency shift and fractional phase of the P-code chip rate component, is coupled from mixer 64 to a P-code chip rate signal processor 66.

The C/A code chip rate component is recovered by connecting another output of power divider 48 directly to a mixer 68 and yet another output of the power divider 48 to mixer 68 through a delay line 70, which introduces a delay equal to one-half the period of the C/A code chip rate. The output of mixer 68 is coupled by a filter 72 to a mixer 74, where it is

down converted by a tone from synthesizer 40. The output of filter 72 is a sine wave at the C/A code chip rate. A low-frequency, narrow-band sine wave signal exhibiting the Doppler frequency shift and fractional phase of the C/A code chip rate component is coupled from mixer 74 to a C/A code chip rate signal processor 76.

As describe above, the MacDoran et al. patent describes the synthesizer 40 creating reference signals that are used to generate other signals. The MacDoran et al. patent does not describe receiving the reference signal. Thus, the reference signal is not received separate from the carrier-removed GPS signal as claimed by Applicant.

Applicant now believes that amended independent claim 1 is in condition for allowance and the claims 2-4 that depend on independent claim 1 are also in condition for allowance.

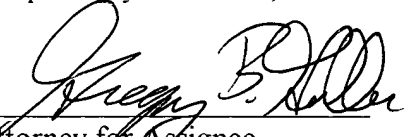
Allowable Subject Matter

The Examiner objected to claims 3 and 4 for depending from rejected claims and stated that claims 3 and 4 would be allowable if rewritten in an independent format. Applicant thanks the Examiner for the finding of allowable subject matter, but in view of Applicant's amended claim 1, claims 3 and 4 are now in condition for allowance without amendment.

Conclusion

In view of the foregoing discussion, Applicant respectfully submits that claims 1-4 as presented and in view of the remarks and amendment above are in a condition for allowance or places the application in better condition for appeal, and such action is earnestly solicited.

Respectfully submitted,

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